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A Young Child's Perspectives on Outdoor Play: A Case Study from Vancouver, British Columbia

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ABSTRACT

There has been an increasing amount of concern about the lack of direct exposure that young children have to nature and the outdoors in Canada and the United States, leading to an increase in outdoor- and nature-based learning models for young children. However, very little research has been done in the field of early childhood environmental education. In particular, studies investigating young children's perspectives on outdoor learning and environmental education are extremely scarce. This article gives a critical summary of two previous studies that do consider young children's perspectives in relation to environmental education, and then describes a recent case study in which one young child's perspectives on outdoor play were sought. The findings from the three studies are compared. The importance of young children's choice in active, co-constructed environmental education is discussed. As well, the need for early childhood environmental education to take place in locations that are familiar to young children is highlighted.

Keywords: environmental education; early childhood education; outdoor play; young children's perspectives

Early Childhood Environmental Education and Outdoor Learning Is Supposed To Be Good For Children

In the past two decades there has been an increasing amount of concern about the lack of direct exposure that young children have to nature and the outdoors in Canada and the United States (Rosenow & Bailie, 2014). In response, many early years child care centers (such as "Hand-In-Hand Early Years Nature Education Program Comox Valley," n.d.) and some Kindergartens (for example, *Nature Kindergarten 2012-2013*, 2013) in British Columbia have turned to nature-based and outdoor-learning models. In general, this type of nature-based or outdoor-learning can be thought of as the Forest School approach (Den Hoed, 2014).

The underlying assumption at work is that direct exposure to nature is good for children. A recent review of the literature (Gill, 2014) supports this view: the review found that children under the age of 12, who engage directly with nature regularly, experience improved physical, emotional, and mental health; greater well-being; increased cognition; superior social skills; and are more likely to feel concern for the environment and connectedness to nature (Gill, 2014). Gill's (2014) literature review was based on 61 research articles, whose quality ranged from 'unclear' to 'good.' Based on my reading of the titles of these research articles, only five of the 61 articles considered children's perspectives, preferences, or perceptions (Gill, 2014). So at best, we can conclude that *adults* are sure that direct exposure to nature is good for children.

I am not going to argue that children should not learn and play outdoors. I will, however, suggest that children should be asked about their experiences and preferences when doing so.

What Do Young Children Think About Environmental Education and Outdoor Learning?

The gap in the research. Environmental education research is often conducted with high school and middle school students as participants, and their perspectives on environmental education and learning are occasionally sought out. For example, Blatt (2014) studied the alignment and disagreement between a teacher's perspectives and the students' perspectives on the goals of a high school environmental education course. Similarly, high school students have been asked about their opinions of the integrated Environmental Studies courses that they participated in (Breunig, Murtell, & Russell, 2014).

Rickinson (2006) recognized that the process of learning, and the role of the learner, were both under-researched in environmental education. He specifically indicated that future research on environmental learning should include all stages of life, including infancy and (early) childhood, not just the years of formal schooling (Rickinson, 2006). Unfortunately, even older students' perspectives on environmental learning are not often researched. Middle school and high school students' perspectives on other environmental topics are more likely to be investigated. For example, Barraza and Robottom (2008) elicited middle school students' conceptions of environmental issues. As well, a recent study (Kalvaitis & Monhardt, 2012) investigated 6-11 year olds' relationships with nature. One of the few studies looking at young children's perspectives is my Master's research, which looked at 4-6 year olds' conceptions of nature (Beattie, 2014).

In 2009, Davis conducted a review of the published literature in the field of early childhood education for sustainability and environmental education. Davis (2009) found such a scarcity of research articles that she declared early childhood environmental education (ECEE) to be a 'hole' in both the early childhood and environmental education fields of research. Davis (2009) suggested future work be done into research partnerships between ECEE and other fields, into professional development for early childhood practitioners, into ECEE centres, and into young children's capabilities as environmental stakeholders. Davis' (2009) last recommendation aligns with Rickinson's (2006) call for further research into the process of environmental learning and the active, participatory role the learner can take.

However, the most common form of environmental education research conducted with students of any age is some form of assessment, in which the researcher seeks to measure the impact of an environmental education program on the students' knowledge or attitudes. One year-long study measured the effectiveness of an environmental education course for 5-14 year olds that used empathy and critical thinking as teaching tools, and found that these teaching techniques were beneficial (Ampuero, Miranda, Delgado, Goyen, & Weaver, 2015). Another study (Bergman, 2015) measured fourth and fifth graders' environmental awareness, intention to act in an environmentally positive way, and their recollection of the environmental knowledge that was taught after a full year environmental education course. The results showed that the students' environmental awareness and knowledge had increased, but not their intention to act in an environmentally positive way (Bergman, 2015). Even a study of one of British Columbia's newest Nature Kindergartens (Elliot, Eycke, Chan, & Müller, 2014) focuses on documenting, measuring and assessing the effect the program has had on the young children's ecological awareness and environmentally responsible behaviours – which shows there is no significant difference between children who went to Nature Kindergarten and children who attended traditional Kindergarten.

Unfortunately, it does not seem as if Davis' (2009) and Rickinson's (2006) suggestions have been taken up. While a fair amount of work has been done to study adults' opinions on ECEE, young children's perceptions are still rarely solicited (Boileau, 2013). Boileau (2013) discusses some of the barriers to working with young children that may prevent such research from taking place; however, she also points out the methodologies and ontologies, which allow researchers to circumvent these problems. I believe that, armed with the Mosaic approach (Clark, 2001, 2007) and a sociocultural understanding of childhood (Robbins, 2005), there is no reason a researcher cannot develop a relationship with young children that will allow the researcher to elicit the children's perspectives on

environmental education or outdoor learning. As I see it, the outlines of the early childhood environmental education research gap are fairly clear. Research is done into children's perspectives on environmental and outdoor learning, but mainly with older children. More research is done into children's perspectives on general environmental topics; again, mostly with older children. Finally, the bulk of environmental education research is done without listening to the voices of the children, or students, at all.

Below, I give the details of two such studies – two of the very few studies in the field of environmental education that I am aware of – that do take young children's perspectives into consideration.

Research on environmental education and outdoor learning that includes young children's perspectives.

Green (2013) conducted research that focused on young children's experiences of their own 'special places' in or near their homes. The 12 children participating in the study were between 3 and 5 years old (Green, 2013). The notion of 'special places' is relevant to ECEE because the relationship children have to place and the physical environment is a crucial part of outdoor learning and environmental education (Proshansky & Fabian, 1987, Chawla, 1992, and Wilson, 2008, all as cited in Green, 2013). Children's perspectives were collected using multiple methods: the children created artistic representations of their special places by painting, drawing, using play dough, using blocks, or using a combination of these methods (Green, 2013). Since the children's artwork was not being judged, the content of the artistic creations was not analyzed, but was instead used to complement the oral data being collected (Green, 2013). Children also led the researcher on a tour of their homes, on which they shared the locations and stories of their special places (Green, 2013). The tours were conducted so as to maximize the children's comfort: parents or siblings came along as desired, and the tours ended when the children wanted them to finish (Green, 2013).

Green (2013) found that children desired special places for the purposes of autonomy, privacy, play, hiding, exploration, and resting. Many children had more than one special place, since one place alone was not adequate for both hiding and exploring (Green, 2013). The children's special places were found both inside and outside their homes (Green, 2013). The indoor special places were often cozy and familiar ones, with emotional attachments, and appeared to provide the children with a sense of belonging (Green, 2013). In contrast, the outdoor special places were often beyond the fenced-in limits of the children's backyards, or made use of features in the yards in unconventional ways, likely indicating that young children want to create their own rules and exert control when creating their outdoor special places (Green, 2013). When outdoors, children preferred unstructured spaces over formal, organized areas, such as their structured, organized backyards (Green, 2013). In many cases, the children were supported by their parents, and the children appeared to appreciate the guidance and learning opportunities this afforded them (Green, 2013). However, the children created special places that only they could access, suggesting that the balance between support and independence must be carefully maintained (Green, 2013).

I believe that Green's (2013) research is an excellent example of ECEE work that is based on children's perspectives and that can help answer questions about how young children think and feel about environmental education and outdoor learning. Outdoor play is a crucial element of environmental education and outdoor learning – and Green's (2013) work helps early childhood environmental educators understand where and how young children play, and therefore learn, outdoors.

Ghafouri (2012) also offers a study which includes a glimpse of 20 young children's perspectives. This study (Ghafouri, 2012) considers children as active learners who co-construct their experiences when directly engaged with nature, and aims to understand how different kinds of engagement affect the outdoor learning process. Different kinds of engagement, such as free-choice play, structured or goal-oriented activities, and emotional and intellectual engagement were all considered and differentiated within the children's learning (Ghafouri, 2012). The children participating in the research were students in a junior/senior kindergarten class, between 3 and 5 years old (Ghafouri, 2012). Ghafouri (2012) claims to use grounded theory methodology, but I don't believe this is accurate. My understanding of grounded theory is that the researcher begins without any theories and uses the data to develop one that explains the data and how they connect to the larger social system (Starks & Trinidad, 2007); I think Ghafouri (2012) has done the opposite, starting with several theories about learning, engagement,

and environmental/nature education, and then using the data to show how these theories mainfest in a specific situation.

Nonetheless, the observational data Ghafouri (2012) has collected gives readers a valuable glimpse into children's outdoor learning processes. In the study, the children found a dead squirrel while they were walking in the schoolyard (Ghafouri, 2012). This event created speculation about the cause of death and worry about how the squirrel felt; the children poked the dead squirrel, drew pictures, took pictures with a camera, and conversed in small groups (Ghafouri, 2012). The children inititated class outings in which they, which their teacher and the researcher, returned to visit and investigate the squirrel for five days, noticing more and more details each time (Ghafouri, 2012). During this time, their interest was also transferred to live squirrels in the school yard, and the children remained interested in squirrels even after the teacher removed the dead squirrel (Ghafouri, 2012). The teacher removed the dead squirrel because she felt it was making the children too sad (Ghafouri, 2012); Ghafouri's (2012) observations suggest that the children felt "anxiety over leaving the [dead] squirrel all alone" (p. 8) and "concern about the 'well-being' and the condition of the dead squirrel suggesting various ways to make him feel better, warmer, safer and less hungry" (p. 9), but not necessarily sadness; for instance, the children covered the dead squirrel with leaves, to keep it warm, before they returned to their classroom, rather than shedding tears. The children were surprised and confused when they discovered that the dead squirrel had disappeared (Ghafouri, 2012). For them, this was a direct experience with nature, in which the children had agency, control, and demonstrated a desire to prolong their engagement with the subject. Ghafouri (2012) observed the same children on a visit to a local farm. The visit was a tour run by the farmers (Ghafouri, 2012). The children did not work in small groups, ask questions, draw pictures, or show a desire to investigate farms further after the organized visit (Ghafouri, 2012). Ghafouri (2012) suggests this is due to the adult-controlled nature of the farm visit – the children did not have enough time to engage with the animals or the activities, nor were the positioned as active learners.

I think Ghafouri (2012) could have improved this study by asking the children what they thought about the two outdoor learning experiences, rather than interpreting or assuming what caused the differences in the children's behaviour. However, we can take the children's comments, recorded by Ghafouri (2012), as reflective of their perspectives on their outdoor learning experiences. When investigating the dead squirrel, there were many questions and comments, on a range of subjects related to the squirrel (Ghafouri, 2012). Similarly, when the children were silent, as at the farm, and afterwards, that must mean something as well (Ghafouri, 2012). I would say that when the children were more interested in their learning, and felt more comfortable in the learning environment, they were more talkative. It is reasonable to see the results of Ghafouri's (2012) study as evidence that children's outdoor learning is more effective when it is co-constructed with the children, who are allowed to be active agents with control over the learning experience (Bransford, Brown, & Cocking, 1999, as cited in Ghafouri, 2012). This conclusion supports Green's (2013) finding, that children desire independence and control when playing, and learning, outdoors. This notion is further supported by Caiman and Lundegård's (2014) work which confirms young children's ability to act as agents in their own outdoor learning experiences, when they are given freedom to choose their own courses of action.

While I applaud the work done by Ghafouri (2012), Green (2013), and Caiman and Lundegård (2014), I do not think it is sufficient. Although they include comments from young children, and touch on the topic of early childhood environmental education, they are not asking the children about outdoor learning, directly or indirectly. Therefore, I believe that there is still a gap, or a 'research hole' (Davis, 2009), in the field of ECEE, that will require much more work to fill. A review of the literature (Hedefalk, Almqvist, & Östman) completed in 2014 indicates that research on how children learn about the environment or outdoors remains scarce.

Young children's perspectives on environmental education and outdoor learning should be included in future research.

It is important to make an immediate, and whole-hearted, effort to include ECEE that investigates young children's perspectives on environmental education and outdoor learning in the research priorities of both the environmental education and early childhood education fields. I think there are two main reasons for doing this. The first reason is that children's participation and perspectives in ECEE research are required by the United

Nations Convention on the Rights of the Child (UNCRC) (United Nations, 2015a). According to the UNCRC, young children have an ethical right to be involved in research on topics that concern them (Gray & Winter, 2011; Harcourt & Mazzoni, 2012). Canada ratified the UNCRC in 1991 (United Nations, 2015a), so Canadian children also have a legal right to participate in decision-making that will affect them (Government of Canada, 2015; United Nations, 2015b). Young children's outdoor play and outdoor learning certainly concerns young children, so research on this topic should involve young children.

The second reason is that deeper understandings of what young children think about environmental education and outdoor learning should allow early childhood and environmental educators to improve ECEE. High quality ECEE is important for the obvious, practical reasons: all educational experiences should be the best the educator can make them, so that the learners benefit as much as possible. ECEE experiences are particularly crucial, however. Beyond the 'good' that direct exposure to nature does for young children, discussed in the first section of this paper, childhood experiences in nature often contribute to a lifelong relationship with nature and a positive environmental attitude as an adult (Chawla, 2007; Stanger, 2014). If there is any way to prevent the earth from undergoing an ecological catastrophe, we will need people who feel this way. As Sobel (1998) says, "we need to give [young children] time to connect with nature and love the Earth [sic] before we ask them to save it" (p. 1). Thus, we need to ask young children how they wish to spend that time, and how they want to connect with nature, because they are experts on how to ensure that the time young children spend outdoors can generate a loving connection with the nature and the earth.

A Case Study Investigating A Young Child's Perspectives on Outdoor Play

In order to study young children's perspectives on environmental education, I conducted a case study into one young girl's perspectives on outdoor play. I believe research into young children's perspectives is necessary so that ECEE practitioners can create programs that offer meaningful learning opportunities (Ausubel, 2000) for young children – learning opportunities that relate new content to knowledge and experiences with which young children are already familiar. Further, I believe the best way to investigate young children's perspectives on ECEE is to explore their perspectives on outdoor play, since learning occurs spontaneously during young children's outdoor play (Kuh, Ponte, & Chau, 2013; Prince, Allin, Sandseter, & Ärlemalm-Hagsér, 2013).

METHODS

My research investigating one child's perspectives on outdoor play was conducted as an exploratory case study (Yin, 2009). I chose to use a case study method because I wanted to investigate a child's perspectives on outdoor play in a contemporary context that I did not control, which is precisely when case studies work best (Yin, 2009). Further, the case study method can deal with multiple forms of data, such as observations, interviews and documents (Yin, 2009); I anticipated that I would use many forms of data collection in my research, so this made case study a good method to choose.

Research questions. The research questions guiding my study were (1) What does this child like to do when playing outdoors? (2) What does this child think about outdoor play? and (3) What are some characteristics of this child's outdoor play?

Unit of analysis. The unit of analysis in my study is the child I worked with to conduct my research. This case is bounded by my topic of interest, the child's perspectives on outdoor play, and that is what I focused on when I spent time with the child. The child I worked with, Rachel (her name has been changed to preserve confidentiality), was 3 years old at the beginning of the study period. She turned four after the first interview session, so she was 4 years old at the end of the study period. Rachel lived in an apartment in the Greater Vancouver Area, British Columbia, and attended daycare several times per week. Her apartment complex did not have a place where she could play outdoors, although it did have an outdoor swimming pool. Her daycare had a playground. There were three playgrounds near her house, which she indicated that she enjoyed visiting.

Data collection. In this study, I collected data using a modification of the Mosaic approach (Clark, 2001, 2007). This method of data collection has been recommended for working with young children on the topic of environmental education and outdoor learning (Boileau, 2013). As suggested in the Mosaic approach (Clark, 2001, 2007), I used drawing and a playground tour in addition to the more traditional data collection methods of observation and interview. Contrary to the suggestions in the Mosaic approach (Clark, 2001, 2007), I did not collect data from Rachel's father, or any other adults. I felt that this would not be appropriate, since only Rachel was the unit of analysis for this case study. Finally, while the Mosaic approach (Clark, 2001, 2007) suggests that research end with participants and researchers working together to solve a problem or take action, I did not feel this was a necessary part of an exploratory case study, so I did not do this step.

This case study consisted of three sessions in which Rachel and I spent time together. All of the sessions were audio-recorded, with Rachel's assent. Rachel's father was present throughout all of the sessions. The first session took place at a playground near Rachel's apartment. Rachel chose which playground to go to, and gave me a tour of the playground. She showed me which playground elements she enjoyed, how she liked to play on them, and answered some questions about why she liked certain aspects of the playground elements.

The second session was held inside Rachel's father's office. I asked Rachel to draw a picture of herself playing outside, or to draw somewhere outside where she would like to play. While she was drawing, we talked about the features of her drawing as well as whether she had played outside that day. The third session was a walk around the University of British Columbia (UBC) campus in Vancouver, British Columbia. I offered Rachel a choice of toys and/or tools that she could use on the walk, such as a magnifying glass, binoculars, a ball, and a flying squirrel puppet. Her father and I followed her, letting her choose the path we followed and how long we spent at certain objects of interest. I asked her about what she could hear and see, and why she made certain choices. All of the sessions included observations and informal interviews.

Data analysis. I analyzed the data through a constant comparison analysis, which is appropriate for observations, text, conversations and drawings (Leech & Onwuegbuzie, 2008). I transcribed the audio-recordings from the three research sessions, so that I became more familiar with them. I transcribed the first session before I conducted the final session with Rachel. This meant that I had already started the data analysis before I finished the data collection; therefore, I was able to use the third session for confirmation of themes I thought I had identified in the data, for member checking, and for triangulation, as well as to gather new data. I did not consider any themes or codes in advance. I tried to let them emerge from the data as I read through, listened to, looked at, thought about, and coded the transcripts.

Researcher positioning. In my role as a researcher, I had an effect on the data that was collected and how it was analyzed. While I believe that it is extremely important for a researcher to put their own worldview aside, so as to focus more closely on the perspectives of the child they are working with, it is impossible for anyone to do this completely (Maxwell, 2006). Therefore, I need to clarify my biases and prior experiences that relate to the research topic.

As an educator and a researcher, I have some experience in the field of outdoor learning and/or environmental education for early childhood. I believe very passionately that outdoor learning is beneficial for young children, and that young children have the right to influence the design of their own outdoor/environmental learning experiences. Further, I believe in constructivism, and I understand meaningful learning to be based on prior knowledge and experience (Ausubel, 2000; Driver, Asoko, Leach, Scott, & Mortimer, 1994); this underlies the importance of working with young children to understand how to create meaningful outdoor and environmental learning experiences. When I was a young child, I enjoyed many positive, meaningful, outdoor learning experiences, which influenced my desire to work and teach outdoors.

Ethical considerations. Working with young children as research participants requires unique ethical considerations. For instance, it is crucial that children are given the choice of whether to participate in the research or not (Danby & Farrell, 2004). This is determined by the young children's informed assent, not by their

parent's/guardian's consent, although the adult's consent remains legally necessary. As well, young children are considered a vulnerable population, so participant confidentiality must be maintained at a high level.

Working with young children as research participants also means viewing them as "experts in their lives" (Mason & Danby, 2011, p. 185). Young children should be seen as active agents in ongoing socio-cultural processes (Rogoff, 2003), and as fully competent participants in their daily lives (Punch, 2002). Evers (2011, p. 98) indicates that young children should be understood not only "as 'culture takers' but also as 'culture makers'." Doing research with young children is not the same as researching with adult participants, but the findings are just as valuable; therefore it is especially important to make the extra efforts necessary to work with young children (Danby & Farrell, 2004).

FINDINGS

Slides. Rachel liked to play on slides when she went to the playground. During our first session together, the playground tour, the slides were two of the first elements she chose to show me. When I asked her what her favourite part of the playground was, she indicated the slides first. As she went down the slides, Rachel repeatedly said "whee!" and "that was fun!"

In the second session, she chose to draw a slide to represent 'somewhere outside that she would like to play' (see Figure 1). The slide in her picture was inspired by the "little green slide" at her daycare centre, but became a "really big" waterslide:

R: Yeah, but I want it to be a big slide, like there, there, there, there… [Indicating that the slide should go off onto another page]
L: All the way out to there?!? You can draw it like that if you want.
R: I want it all the way there, there, there, there…. [Again indicating that the slide should go off onto another page]
(Father: You can draw it.)
L: Draw it as big as you want…I'll hold the paper and you draw, ok?
R: OK.
[…]
L: Oh, that looks so fun…can you go slow on the slide?
R: No, FAST!
L: Fast! [Everyone laughs]
R: Look, this is only a waterslide. [As she starts colouring blue water on the slide]
L: A waterslide?!?
R: Yeah.

Speed. When Rachel played outside, she liked to do things that involved going "fast." This was evident in the conversation surrounding her drawing of the waterslide (see Figure 1), which is quoted above. Additionally, in the playground tour, she repeatedly asked her father to help her go faster. On the swings, when she wanted him to push her, she said: "DADDY!...can you push me?!...whee…faster!...SUPERDUPER FAST!!" While she was on the merry-go-round, she requested that he spin her "fast!!...whee…whoa…really really fast!"

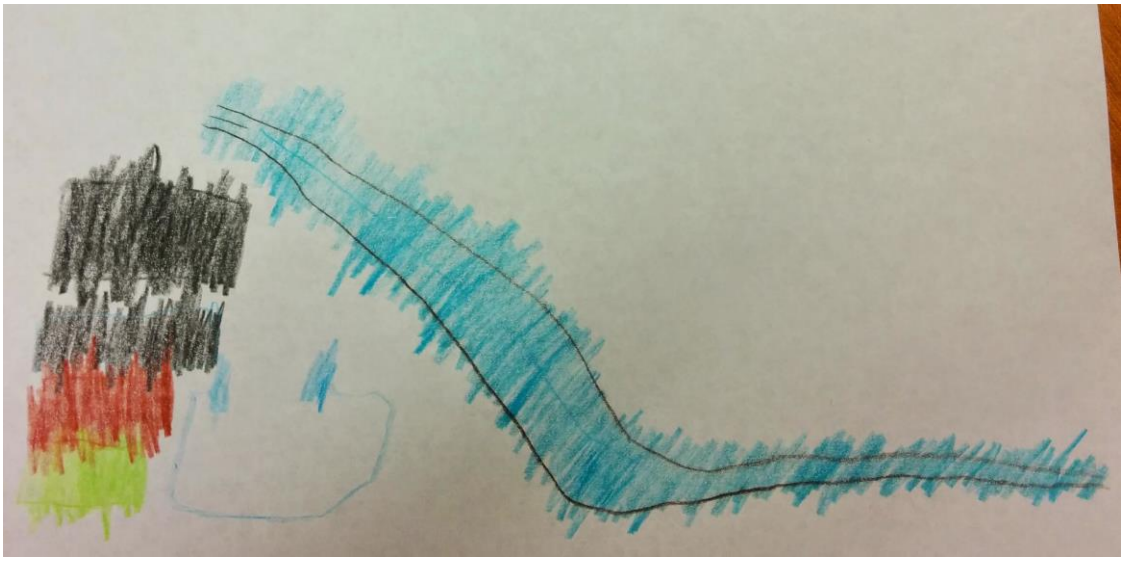

Figure 1. Rachel's drawing of a waterslide, representing somewhere outdoors that she would like to play.

In our third session, a walk at the UBC campus, Rachel was constantly running from place to place. At one point, she asked her father to "chase" her and to "run really fast." As well, even though she was holding the magnifying glass, and frequently used it to look at many different objects, she only spent a few seconds observing each item, according to the approximations in my observations.

Outdoor play as a social activity. Outdoor play was primarily a social activity for Rachel. During the playground tour, she needed her father's assistance to play on many of the elements. For instance, she required his help to spin the merry-go-round while she was on it, and to push her when she was on the swing. When she played on the teeter-totter[1], she directed her father and me as to where we should sit so as to maximize her enjoyment:

R: Teeter-totter! [Running over and sitting on one end]
F: Do you want me to get on one side?
R: Yeah….oh, the middle, Daddy, the middle!
F: You want me to get in the middle?
R: And you can go on that side. [Speaking to me]
L: I can go on that side, ok.
[…]
R: Hey Daddy, I got an idea…maybe I can sit on the middle. [Rachel and her father switch positions, and now her father and I are bouncing the teeter-totter]
L: Is that fun?
R: Yeah, it is.

In our third session, a walk at the UBC campus, Rachel acted as the leader, making the decisions about where we would go and continually calling out "now this way!" and "come on, this way!" A leader cannot lead without followers, so this was definitely part of her play that required other people. Later in the walk, we arrived at one of the fountains on the UBC campus, and found that it had been filled with soap, which was creating masses of bubbles. A group of university students was playing with the bubbles, flicking them at each other, blowing them out of their hands, and putting them on their heads like crowns. Rachel copied their actions, and even joined in their play to a degree, when Rachel and the students helped each other blow bubbles out of one another's hands.

[1] The teeter-totter at this playground was not the traditional type. It was very wide, made of a wooden plank, and the middle was supported by springs. Therefore, sitting on the middle was an enjoyable experience, which it would not have been on the older, metal, fulcrum-based teeter-totters.

Finally, Rachel indicated that she liked to play outdoors with her friends. While she was drawing steps up to the waterslide (see Figure 1), she said they were "for me, for all my kids [daycare friends] to go on, to go on the slide." In our first session, I asked Rachel about playing by herself, and it seemed as if she had never thought about it before:

L: What would you do if you were at the playground all by yourself?
R: [hesitation] I don't know.
L: You don't know? Think that would ever happen to you?
R: Yeah, maybe I'd be alone.
L: You would be alone.
R: Yeah.

I believe this conversation indicates that, for Rachel, the idea of outdoor play as a solitary activity is completely foreign to her. For Rachel, outdoor play always involved other people.

Outdoor play as a holistic experience. Rachel's outdoor play involved her whole body and many of her senses. For Rachel, outdoor play was a verbal, cognitive, emotional, and kinesthetic experience. At the playground, she challenged herself physically by climbing to the higher level of the merry-go-round; she challenged herself emotionally by being "brave" enough to slide down the pole that she initially described as "scary." When Rachel showed me how she climbed up to the slide, she counted out loud, indicating that playing involved both verbal and cognitive skills: "it just takes one, two, three, four, five."

In Rachel's drawing of a waterslide (see Figure 1), the stairs up to the slide are "really big." Rachel said that she and her friends would need to use their hands to help them climb up, suggesting that outdoor play required her to use her whole body. During our walk around the UBC campus, Rachel enjoyed looking at many different things through a magnifying glass. When we arrived at the fountain full of soap bubbles, however, she chose to switch from play that was primarily visual to play that was more tactile: she grabbed the soap bubbles with her hands, and tried to wipe bubbles on her father and me. She also smelled the bubbles.

Rachel often asked questions and carried on conversations while she played. She had distinct ideas about how she wanted to play and was able to articulate them. At the playground, she wanted to run in a circle on the merry-go-round, while the merry-go-round was spinning, but she kept falling. She explained her problem to her father and me, and I suggested that she run in the opposite direction. Rachel thought about this for a minute, and then tried it. My suggestion worked, and she was soon running and laughing. While walking at the UBC campus, Rachel asked many questions about objects we encountered, such as a cement truck, a sewer grate, the blue whale skeleton, and the students on bicycles. She stopped running to ask her questions and hear the answers, and then took off again when she was satisfied.

Outdoor play is not 'nature' play. While Rachel enjoyed playing outdoors, this does not mean she enjoyed playing in 'nature.' This is shown most clearly by the discussion surrounding another drawing she made during our second session (see Figure 2). This drawing shows "the beautiful blue sky," "a big spiky tree" that is "green and brown," and "a bird." Rachel was very clear that this picture shows a place that she would not want to play:

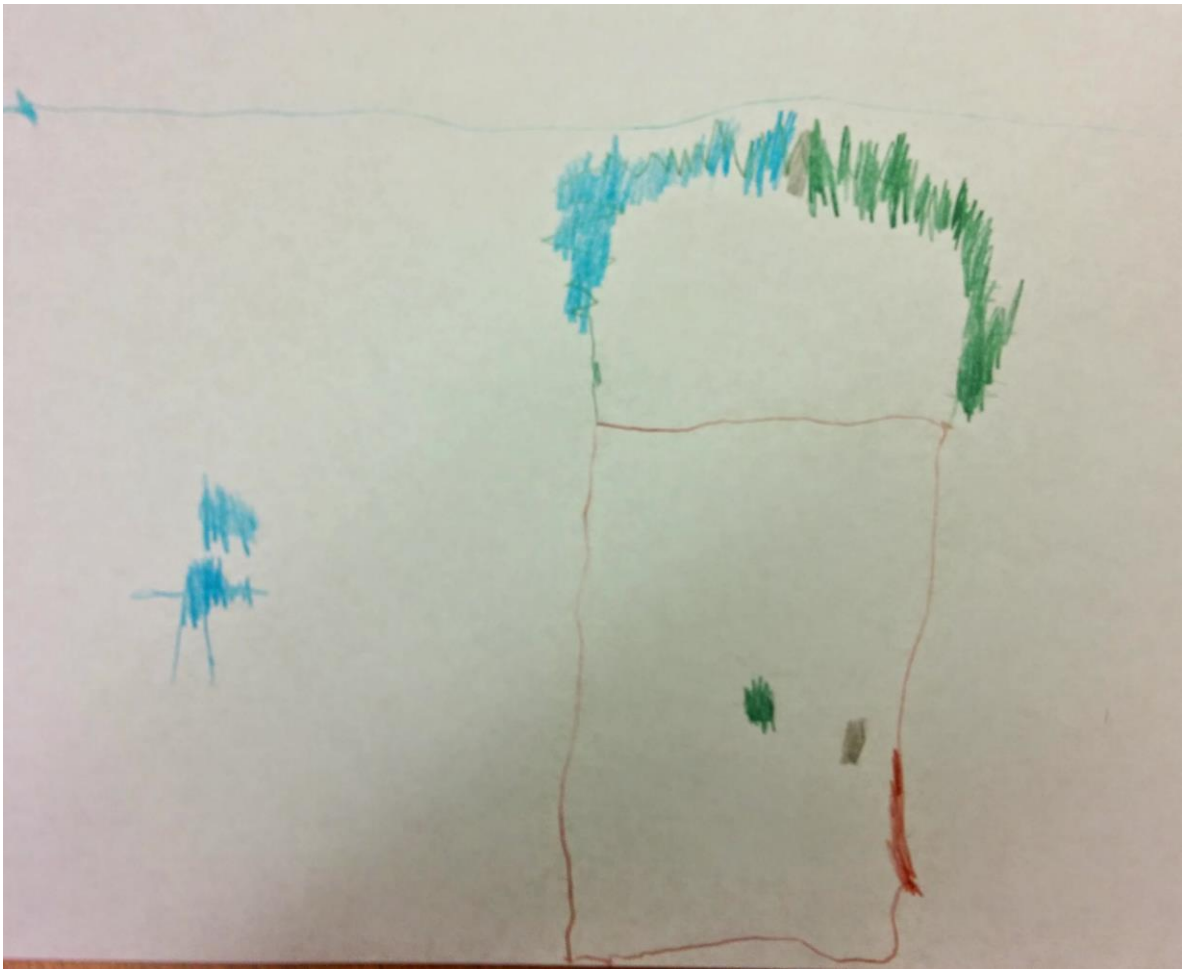

Figure 2. Rachel's drawing of "a big spiky tree" and "a bird."

L: So what else is in that picture?
R: Just only a tree, a big spiky tree.
L: And would you like to play beside that big spiky tree?
R: No.
F: Why not?
R: Cuz it's [the tree is] too spiky.
[…]
L: So what about you, would you be in this picture?
R: Only just a bird and a tree.

Rachel's father showed us a picture that Rachel had drawn of herself, demonstrating that Rachel can draw herself; thus, I know that Rachel did not leave herself out of the picture with the tree and the bird (see Figure 2) because she was not capable of drawing herself.

At the playground, Rachel found two large sticks in one of the play areas. Immediately, she stated, "I just have to be getting these sticks off here, because these don't go on here." This shows that, for Rachel, outdoor play at the playground and 'nature' play that might involve sticks do not go together. Finally, when using the magnifying glass during our walk around the UBC campus, Rachel was just as interested in looking at 'human-made' or 'built' items as she was in inspecting 'natural' items. For instance, she chose to look at her father's belt, her father's shoe, her own shoe, some benches, and a sign, all of which are 'human' items. She also chose to look at various small rocks

and the bark of a tree, which are more 'natural' items. The rocks and the tree were located right beside the path we were walking on, so Rachel did not leave the path to seek out these particular items.

Interestingly, during the drawing session, Rachel discussed how she had enjoyed playing outside all day at daycare, even though it had been raining. She and her friends wore their "muddy buddies"[2] so they could sit "on the wet slide," "on the wet swings" and "on the wet ground." Rachel's father asked, "did you like playing outside today?" and she replied, "yeah." Rain was a 'natural' element that did not interfere with Rachel's outdoor play at all. The rain was also not the focus of the outdoor play, although the mud it created may have been.

DISCUSSION

What Does Rachel Like To Do When Playing Outdoors? This case study indicated that Rachel had clear preferences regarding her outdoor play. She enjoyed high-speed activities, particularly slides. Rachel prefers to play outdoors with other people. Green (2013) suggested that young children prefer unstructured outdoor spaces to play in; Rachel's liking for playgrounds and 'human-made' objects appears to contradict Green's (2013) findings in this regard. Green's (2013) study was conducted with 12 children, aged 3 to 5 years, in Idaho. It appeared that most, if not all, of the children Green (2013) worked with lived in houses with backyards and access to "wide and open natural spaces for exploration" (p. 23) beyond their backyards. Rachel lived in an apartment, and a trip to a 'natural,' wilderness area would have required considerable planning and effort by her parents. On the other hand, Rachel could access a playground multiple times per week at daycare. It seems possible that young children's preferences for where they play outdoors are determined more by the children's current surroundings and previous experiences than by the outdoor spaces themselves.

Green (2013), Ghafouri (2012), and Caiman and Lundegård (2014) have all identified the importance of the social element in outdoor play, and Rachel's emphasis on enjoying group activities during outdoor play echoes their findings. Ghafouri (2012) observed 20 children, aged 3 to 4 years, in a city in Ontario; Caiman and Lundegård (2014) observed 6 children, aged 3 to 5 years, in suburban Sweden. Green (2013) showed that young children enjoy playing outdoors with their parents, and Ghafouri (2012) and Caiman and Lundegård (2014) found that young children's outdoor play and learning is enhanced when they can interact with their peers. Rachel indicated that she enjoyed outdoor play that included both her father and her friends, other young children. It appears that the social nature of outdoor play is common to young children from diverse locations and backgrounds.

What does Rachel think about outdoor play? Rachel enjoyed playing outdoors, and repeatedly indicated that it was "fun." There is very little research that addresses the question of whether young children enjoy outdoor play, specifically. Rather, this seems to be an assumption in most research into young children's outdoor play, outdoor learning, and environmental education; it is also assumed in the educational movement towards increasing young children's exposure to the outdoors. Based on my personal experience working with young children outdoors, I believe that most young children do enjoy playing outdoors, at least most of the time. The findings from this case study confirm my belief. Rachel indicated that she enjoyed playing outdoors even in the rain. Boileau (2011) worked with 32 young children, aged 3 to 5 years, in a small city in Ontario, and came to similar conclusions. Boileau (2011) found that all of the children enjoyed playing outdoors, and chose to remain outside when it started raining during an outdoor activity.

Rachel did not equate outdoor play with 'nature' play. This distinction has not been explored explicitly in much of the research that investigates young children's outdoor play, outdoor learning and environmental education. I believe this is due to the emphasis that environmental education places on the 'natural,' rather then the 'human-made,' environment (British Columbia Ministry of Education, 2007, 2008). My Master's research (Beattie, 2014), in which I investigated the conceptions of 'nature' held by 12 4 to 6 year olds from Toronto, Ontario, suggested that young children may understand 'nature' to be very different from 'the outdoors.' Further, my research indicated

[2] "Muddy buddies" are one-piece rain suits, similar to one-piece snowsuits, designed to be worn outdoors in rainy, muddy, or chilly weather. They only come in children's sizes.

that some young children do not want to be in 'nature,' although they enjoy going outside (Beattie, 2014). My work with Rachel in this case study supported this conclusion.

What are some characteristics of Rachel's outdoor play? The two major characteristics of Rachel's outdoor play were its social nature and its holistic nature. Rachel demonstrated and described her outdoor play as a social activity. I have discussed this aspect of her outdoor play, and how it confirmed the findings of other researchers in the field, above.

Rachel also described her outdoor play as involving her whole body; for instance, she often referred to climbing with her hands and feet. Further, she indicated that her outdoor play was more than a kinesthetic experience: her outdoor play had verbal, cognitive, and emotional elements as well. In Caiman and Lundegård's (2014) study, young children displayed these same four elements during their outdoor experiences. For Caiman and Lundegård (2014), this showed that the young children demonstrated agency during outdoor activities. Ghafouri (2012) also found that young children's self-directed outdoor play involved verbal, cognitive, emotional, and kinesthetic aspects.

Boileau (2011) indicated that verbal, cognitive, emotional, and kinesthetic skills are important elements of play, which should be included when developing outdoor learning or environmental education programs for young children. This case study supported Boileau's (2011) work. Further, this case study showed that these four elements of play are already present in Rachel's outdoor play. To me, this suggests that a transition from outdoor play to outdoor learning should focus on maintaining the verbal, cognitive, emotional, and kinesthetic elements that are already present, rather than introducing new ones.

Further research. As this research was a case study, there are limits to the generalizability of the findings. By combining and comparing this case with other work in the field, I have been able to suggest some broader conclusions. Further study will be necessary, however, before any broad claims can be made. In particular, I believe that further investigation into young children's preferences regarding activities and locations for outdoor play is called for; in addition, investigation of the reasons for these preferences should be undertaken.

More urgently, I believe that research that considers the links between outdoor play, outdoor learning, and environmental education must continue. There are many commonalities between the two, and these should be built upon so as to improve the early education environmental education programs that are developed. In particular, I am referring to the verbal, cognitive, emotional, and kinesthetic elements that appear in both activities. As well, both outdoor play and environmental education are social activities for young children. Research, and research methodologies, that take this into account should be developed.

Finally, the disparity between the 'human' and 'natural' environments that some young children may feel should be investigated further. Otherwise, early childhood environmental education may be taking place in locations where young children are uncomfortable, which is unlikely to lead to children forming positive, loving connections to nature. Offering early childhood environmental education programs in less 'natural' locations, such as playgrounds, may be a challenge, but it is a challenge that needs to be embraced. Ardoin, Clark, & Kelsey (2013) call for further research into environmental education in urban settings, and I add my voice to theirs. Environmental education for early childhood should be practiced in places that young children feel comfortable, and if those areas are not the 'natural,' wild locations traditionally associated with environmental education, then early childhood environmental educators must work to create programs that highlight the 'natural' elements of urban settings, and help young children to connect to the earth wherever they may be.

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